

What is claimed is:

1. A method for digitally stabilizing an image recording with a CCD sensor, which is mounted in a moving or airborne carrier, for substantially eliminating unwanted movement influences of flight movements of said carrier on the image quality of the image recorded by said CCD sensor, the method comprising the steps of:

5 detecting an image with said CCD sensor and outputting image data;

detecting said flight movements of said carrier as angular data with an inertial sensor and said inertial sensor being adapted to supply said angular data with a time delay; and,

10 correcting said image data in accordance with said detected angular data with said image data being time delayed by a time interval relative to said detected angular data.

2. The method of claim 1, comprising the further step of intermediately storing said image data from said CCD sensor on a data carrier to delay said image data by a time interval.

3. The method of claim 2, wherein the correction of said image data is carried out as an on-line stabilization by performing the further step of displaying the corrected image data as a stabilized image on a monitor on board said carrier.

4. The method of claim 1, comprising the further step of:

recording the detected angular data together with the image data from said CCD sensor on a data carrier; and,

5 carrying out the correction of image data as an off-line evaluation in a fixed ground station.

5. The method of claim 1, wherein said time interval for delaying considers the time delay by said inertial sensor as well as by scanning and computation time.

6. The method of claim 1, wherein said inertial sensor is a strap-down sensor.

7. The method of claim 1, comprising the further step of shifting the image lines by pixels by the corresponding angular increments transversely to the direction of flight when correcting said image data to stabilize about the roll axis while stabilizing about the pitch axis takes place by omitting or reproducing whole lines.

8. An arrangement for digitally stabilizing an image recording with a CCD sensor, which is mounted in a moving or airborne carrier, for substantially eliminating unwanted movement influences of flight movements of said carrier on the image quality of the image recorded by said CCD sensor, the arrangement comprising:

said CCD sensor being provided to detect images and to output image data;

an inertial sensor for detecting movements of said carrier as angular data;

a first device for correcting said image data in accordance with said angular data; and,

a second device for delaying said image data by a time interval relative to said image data.

9. The arrangement of claim 8, wherein said second device is an intermediate store for delaying said image data by said time interval.

10. The arrangement of claim 8, wherein said first device is mounted on board said carrier and is adapted to carry out an on-line stabilization; and, wherein said arrangement further comprises a monitor on board said carrier for displaying the corrected image data as a stabilized image.

11. The arrangement of claim 8, further comprising:

a unit for recording said angular data from said inertial sensor together with said image data on board said carrier; and,

said first device for correcting said image data being mounted in a fixed ground station and said first device being adapted to carry out an off-line image evaluation.

12. The arrangement of claim 8, wherein the time interval for delaying considers the time delay by said inertial sensor as well as by scanning and computation time.

13. The arrangement of claim 8, wherein said inertial sensor is a strap-down sensor.

14. The arrangement of claim 8, wherein said first device is adapted to shift the image lines by pixels by the corresponding angular increments transversely to the direction of flight when correcting said image data to stabilize about the roll axis while stabilizing about the pitch axis takes place by omitting or reproducing whole lines.